UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,621	07/10/2003	Paul Unbehagen	15942RNUS02U	3350

34645   7590   08/02/2007
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ART UNIT	PAPER NUMBER
2616	

MAIL DATE	DELIVERY MODE
08/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/616,621	UNBEHAGEN ET AL.
	Examiner	Art Unit
	Hanh Nguyen	2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Response filed 7/10/07*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

    4a) Of the above claim(s) *22 and 23* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21 and 24-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *7/10/03*.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

From the response filed on 7/10/07, claims 1-27 are pending. Applicant selects claims 1-21 and

24-27. However, the status of claims 22 and 23 are not indicated. Therefore, examiner assumed

that claims 22 and 23 are withdrawn.

Claim Objections

Claims 2, 14 are objected to because of the following informalities:

In claim 2, " at least one of the routing table" is not consistent with " a routing table" in

claim 1 because the "at least one of the routing table" includes one and more than one routing

tables.

In claim 14, applicant is required to delete " and" on line 6 because the "and" is

duplicated with another "and" on line 8. Appropriate correction is required.

Specification

The disclosure is objected to because of the following informalities:

Application is indicated in the Declaration as a continuation of a provisional application

60/449,621 filed on 2/24/03, but the continuation of a provisional application 60/449,621 is not

shown in the specification. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 17, 16, 18, 19, 20 and 25 are rejected

under 35 USC 103(a) as being unpatentable over Balay et al. (US pat. 7,116,665 B2) in view of

Shen (US pat. 6,907,039 B2).

In claims 1 and 14, Balay et al. discloses a method of exchanging routing information

between Virtual Private Network (VPN) sites (see fig.4;col.8, lines 5-30; process network traffic

between first VPN and a second VPN) , the method comprising the steps of: receiving first

routing information from a first VPN site implemented according to a first VPN model (see

fig.4, step 410; col.8, lines 5-10; receiving packet associated with the first VPN) by a gateway

network device; receiving second routing information from a second VPN site implemented

according to a second VPN model (see fig.4; step 412, col.8, lines 5-10; receiving second packet

associated with second VPN) by the gateway network device; and storing said first routing

information and said second routing information in a routing table (see fig.4, steps 430 &432;

col.8, lines 15-25; access routing table RIB to acquire first addressing/routing information and

second addressing/routing information stored therein). Balay et al. does not disclose the first

VPN and the second VPN models implemented in a gateway. Shen discloses a network element

202 supporting routing and forwarding between virtual routers 205A and 205B (see abstract;

fig.2 and col.1, lines 40-45). Therefore, it would have been obvious to one skilled in the art to

implement the network element 202 as a gateway which is used in Balay et al. to exchange

routing information between the first and the second VPN corresponding with different models.

In claim 25, Balay et al. discloses the routing table contains entries (see fig.1, RIB 113),

but the RIB 113 does not explicitly include a first tunnel VPN ID, a first tunnel route

information, a second tunnel VPN ID, and a second tunnel route information. Shen discloses a

first tunnel VPN ID , a first tunnel route information, a second tunnel VPN ID, and a second

tunnel route information (see fig.3A-3C). Therefore, it would have been obvious to include in

the RIB 113 of Balay et al. VPN Ids, tunnel Ids to route packet between different VPNs.

In claims 4, 5, 17 and 19, the limitations of these claims have been addressed in claim 1.

In claims 8, 9, with the silence of Balay et al., Shen discloses the first.virtual router

protocol connection is based on at least one of Open Shortest Path First (OSPF), Integrated

Intermediate System to Intermediate System (Integrated IS-IS), Routing Information Protocol

(RIP), Border Gateway Protocol (BGP); MP-BGP (see col.2, lines 50-55) which is used to

exchange routing information over the VPN tunnel. Therefore, it would have been obvious to

implement the routing protocols of Shen into Balay et al. in order to exchange routing

information between these Open Shortest Path First (OSPF), Integrated Intermediate System to

Intermediate System (Integrated IS-IS), Routing Information Protocol (RIP), Border Gateway

Protocol (BGP); MP-BGP.

In claims 2, 3, 10 and 11, the limitations of these claims have been addressed in claims 1

and 25.

In claim 12, the limitations of this claim has been addressed in claims 8 and 9.

In claims 13 and 20 Balay et al. discloses (in fig.2,col.6, lines 40-60) establishing a first

secure tunnel (First Internet connection 243 for a first VPN includes a Firewall, NAT services)

between the first VPN site and the gateway network device, and wherein the step of receiving

first routing information utilizes the first secure tunnel; and establishing a second secure tunnel

(second tunnel 242 represents a VPN tunnel includes one of NAT, firewall services, etc.)

between the second VPN site and the gateway network device, and wherein the step of receiving

second routing information utilizes the second secure tunnel. Balay further discloses QOS

information (see claim 13).

In claims 6 ane 7, the limitations of these claims have been addressed in claim 1.

In claims 16 and 18, most of the limitations of these claims have been addressed in claim

1. However, it is inherent that the received packet should carry the header including destination,

source address used for exchanging the routing information.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999

(AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA

35 U.S.C. 102(e)).

Claims 24, 26, 27 are rejected under 35 USC 102(e) as being anticipated by Balay et al. (

pat. 7,116,665 B2).

In claim 24, since the network device is not shown in the claim body, there fore, Balay et al. is relied upon which discloses a network device a first protocol connection for interfacing with a first Virtual Private Network (VPN) tunnel instantiated according to a first VPN model (see fig.2; col.6, lines 42-50; first tunnel 241 represents an Internet connection 243 for the first VPN); a second protocol connection for interfacing with a second VPN tunnel instantiated according to a second VPN model (see fig.2;col.6, lines 42-50; a second tunnel 242 represents a VPN tunnel for second VPN) ; a routing table (LFIB 222; fig.2) configured to associate routing information from the first VPN tunnel with routing information from the second VPN tunnel. (mapping routing information between different VPN traffic; col.6, lines 20-25).

In claim 26, Balay et al. discloses first VPN model is instantiated through a virtual router (See fig.1,col.4, lines 49-55; VRP 111 accesses RIB 112 to update routing information according to a VPN) ; second VPN tunnel is instaniated through VRF table (see fig.1; col.4; lines 32-36; VRF 110 including RIB 113 and FIB 114 table is associated with a single VPN site 130).

In claim 27, further in claim 24, Balay et al. discloses border gateway protocol and MPLS (see col.3, lines 35-45).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kompella (US Pat. 7136374 B1);

Chava et al. (US Pat. 7,154,901 B2).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-Friday 8:30 AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on 571 272 2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hanh Nguyen

HANH NGUYEN
PRIMARY EXAMINER